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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/926,029

12/20/2001

Manabu Haraguchi

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EXAMINER

HAUGLAND, SCOTT J

ART UNIT

PAPER NUMBER

3654

MAIL DATE

DELIVERY MODE

08/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/926,029	Applicant(s) HARAGUCHI, MANABU	
	Examiner Scott Haugland	Art Unit 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (U.S. Pat. No. 4,684,272) in view of Thornton (U.S. Pat. No. 1,655,299) and Haraguchi et al (U.S. Pat. No. 5,819,500).

Watanabe discloses a roll of web comprising an elongated hollow wall defining a tubular shaft member 5 having concentrically spaced inside and outside surfaces, rectangular notches 5a having a limited length from an end of the shaft member, each notch being defined by a recess disposed in the inner surface of the wall of the shaft member and extending to a radial depth short of the outside surface of the shaft member.

Watanabe does not disclose a paper roll comprising thermally fusible packaging paper wound on the tubular shaft member with a folded portion of the paper being disposed on an end of the shaft member, does not disclose at least four notches in the shaft member, and does not explicitly state that the radial depth of each notch is a majority of a thickness of the wall of the shaft member.

Thornton teaches providing a spool for web comprising an elongated hollow wall defining a tubular shaft member having concentrically spaced inside and outside surfaces with at least four notches a_2 , b_2 on the inner surface of the wall that receive projections on a drive spindle.

Haraguchi et al teaches providing a thermally fusible packaging paper 20 wound in a double folded state on a tubular shaft 21 with a folded portion 20A of the paper disposed on an end of the shaft member. See Fig. 3.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Watanabe with at least four notches as taught by Thornton to reduce the minimum angle through which the spool must be rotated to align with the drive projections 16 and improve the convenience and efficiency of use. It would have been obvious to provide the spool of Watanabe with folded thermally fusible packaging paper on the tubular shaft member with a folded portion of the paper on an end of the shaft member as taught by Haraguchi et al to store and dispense such paper as needed for packaging.

It would have been obvious to make the radial depth of each notch a majority of a thickness of the wall of the shaft member to provide a secure drive connection by providing a sufficiently large radial surface for engagement by projections 16 and to minimize material use. Only a relatively thin portion between the notches and outer surface of the spool would be required to provide a smooth continuous surface for winding of the tape.

It appears that the portion of the wall of the shaft member radially outside of the recesses of the notches would inherently be more flexible than the portions of the wall between the recesses since the shaft member of Watanabe appears to be formed entirely of the same material. In any case, it would have been obvious to form the shaft members from a single substantially uniform material for reasons of efficiency since there is nothing in the references to suggest the need to do otherwise.

Response to Arguments

Applicant's arguments filed 4/11/08 have been fully considered but they are not persuasive.

Applicant argues that forming the notches in the wall of the shaft member with a radial depth equal to a majority of the thickness of the wall of the shaft member would not have been obvious since it would undesirably weaken the outer wall in the prior art while it is desired in applicant's invention to allow absorption of the compressing force added to the end of the shaft member. However, it would have been apparent to an ordinary artisan that the depth of the notches 5a would not need to be less than a majority of the thickness of the wall of the shaft member in Watanabe since the wall could be formed with sufficient thickness to support the wound material even if the notches passed completely through the wall. The notches 5a shown in Watanabe form a continuous outer surface of the shaft member 5 and prevent damage and snagging of wound material during winding/unwinding of the material and during removal/mounting of the spool on the drive member. The thinner shaft wall portions adjacent the notches

would inherently be more flexible than the rest of the wall of the shaft member.

Applicant's specification at page 22, line 24 through page 23, line 3 discloses that forming the notches in the shaft member so that they do not pass completely through the wall of the shaft member provides greater resistance to collapse of the lower end of the shaft member under pressure of the wound paper 20 than when the notches pass entirely through the shaft member as in the Figs. 4 and 5 embodiment. The corresponding thinner wall portions of the shaft member in the Watanabe device would inherently perform the same function due to the additional strength that they provide no matter how their thickness compares to the rest of the shaft member wall.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571)272-6945. The examiner can normally be reached on Mon. - Fri., 10:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on (571) 272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick H. Mackey/
Supervisory Patent Examiner, Art
Unit 3653

/SJH/
7/21/08